

Expanding capacity of non-communicable disease research and training in Thailand

Dr Kathleen Potempa is Professor at the School of Nursing in the University of Michigan, where she served as Dean from 2006 to 2016. A globally renowned leader in nursing, education and science, she has a long academic career focusing on cardiovascular fitness in physically impaired populations, nursing, leadership, and community-based approaches to improving health. She is currently collaborating with Dr Benjaporn Rajataramya to improve the capability of the Thai healthcare system in managing chronic diseases.



Cases of non-communicable diseases (i.e., illnesses such as diabetes or cancer – NCDs) are growing worldwide, and are responsible for an increasing number of mortalities each year. This growth coincides with rapid globalisation and urbanisation in developing countries, which have brought about changes in lifestyles and eating habits: from traditional food and high levels of physical activity to western-style foods and lower levels of physical activity. The growing rates of NCDs pose a threat

to the global population. In Thailand, non-communicable diseases have become the leading cause of morbidity and mortality. Yet most NCDs are preventable or treatable, which strongly indicates a need for improved healthcare and improved NCD training and research for healthcare professionals, such as nurses. Dr Kathleen Potempa's research background and collaboration with Thailand's public health services in managing HIV/AIDS and their policies for NCD management led to the

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collaboration for this current project with Thai collaborator Dr Benjaporn Rajataramya. The project aims to provide a five-year training program to enhance the NCD research capabilities of Thai scientists including nurses and other health professionals. Additionally, the programme supports translation of NCD research into practice, enabling better care for people with NCDs and reduction in the incidence of NCDs in Thailand.

PAST SUCCESSES

As is the case with many developing countries, HIV/AIDS is a significant cause of mortality. However, the Thai government was one of the first to significantly advance their control of this disease. In 2003, a collaboration between Thai and American academic institutions was formed to manage the expansion of HIV/AIDS into more populations as well as to provide the opportunity to treat HIV more widely because of a new government policy instituting a universal health plan. This effort aimed to empower nurses within the country's health infrastructure, ultimately expanding the capacity of the public health service to manage the rising number of cases of HIV/AIDS. This collaboration was successful – by 2009 it had expanded the capability of Thailand's healthcare system to cope with the challenges created by infectious diseases, particularly HIV and AIDS. The infrastructure created an opportunity to consider other projects that would leverage this expanded capacity such as the rising occurrence of NCDs.

RISING NCDs

In 2011, Thailand's public health landscape was shifting towards a growing incidence of NCDs, with a concomitant increase in mortality. As with other developing countries, this rise in NCDs was associated with urbanisation and globalisation, which promote a shift from traditional, high activity/low calorie lifestyles towards more western lifestyles, which are associated with lower physical activity and higher calorie intake. Along with this shift comes increasing risk of developing chronic diseases, such as heart disease, cancer and diabetes, which are some of the illnesses categorised as NCDs. Prior to 2012, training for treating NCDs had not been emphasised because of the

primary focus on infectious diseases, injuries and other more prevalent causes of illness at that time. A study by Dr Potempa and Thai collaborators, however, found that nurses and other health professionals were not confident in their ability to care for those with cancer and heart disease, and less than half of the nurses surveyed were confident in their ability to treat more common NCDs like hypertension and diabetes. The need for more information about how to prevent and treat NCDs in Thailand was apparent.

For nurses and other health professionals, the need to refocus their research on NCDs was of increasing importance to provide evidence-based guidance to clinicians and public health policy makers in the new era of NCD prevalence. Because nurses and other health professionals with PhDs were an important part of the research workforce in Thailand, Dr Potempa and Dr Rajataramya embarked on this current programme to advance research training for expanded NCD research.

NCD RESEARCH AND TRAINING

To ameliorate the threat of NCDs, Dr Potempa and Dr Rajataramya's work aims to improve the research training of nurses and other scientists by proposing a five-year post-doctoral training programme. The programme aims to provide two years of post-doctoral NCD research training for ten PhDs, offer short term NCD training for 20 investigators, and provide forums for researchers and administrators to discuss and identify ways to further NCD research in Thailand, thus strengthening the existing foundation for NCD research. This project will increase the capacity of the Thai health infrastructure to manage the increasing burden of NCDs and promote efforts to reduce and prevent their growth, ultimately improving the prevention and treatment of these diseases in the long-term.

CONCLUSION

Growth of NCDs is occurring globally, causing an increasing number of mortalities every year. This growth is influenced by a shift in many developing countries, associated with urbanisation and westernisation, from high activity-low calorie intake to low activity-high



The global community will benefit from countries working together to share knowledge and effective practices

calorie intake lifestyles. To address this, improved training and research into NCDs needs to occur, which would allow countries to refocus their health systems and health policy on the prevention and treatment of such diseases.

If you would like to find out more about the training programme please visit the website <http://postdoctoratencd.umich.edu/>



Behind the Bench

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Research Objectives

Dr Kathleen Potempa's research program has focused on fatigue, exercise, and cardiovascular fitness in physically impaired populations. She directs the Training Program for Strengthening Non-Communicable Disease Research and Training Capacity in Thailand.

Funding

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Collaborators

- Dr Benjaporn Rajataramya, Praboromarajchanok Institute for Health Workforce Development, Thailand
- Dr Philip Furspan, University of Michigan School of Nursing
- Dr Debra Barton, University of Michigan School of Nursing
- Dr Naruemol Singha-Dong, Suranaree University of Technology, Thailand

Bio

Dr Kathleen Potempa, Professor at the University of Michigan, is an internationally recognised leader in nursing, education, and science, as well as the integration of education, practice, and research in clinical settings. Former positions include progressive leadership in health systems and in higher education. She is a member of the National Academy of Medicine and the American Academy of Nursing.

Q&A

What are the main challenges that you expect to face in your current work?

We are finishing year three of this five-year project and find that the enthusiasm for this work is strong. A big challenge has involved choosing our trainees from among the many highly capable applicants. Going forward we want to support those who complete the training to continue their research in Thailand. Finding financial support for research is always a challenge. However, we prepare our fellows to be highly competitive in obtaining research grants both in Thailand and from international research support institutions.

What prompted your interest in this project?

The Thai people are forward thinking and committed to finding solutions to health care challenges through policy, research and practice. As one of the first countries to effectively address infectious disease challenges such as HIV, malaria and others, we knew they would be wonderful collaborators in addressing the rapid growth in NCDs. We are committed to working together

to find mutually beneficial solutions to prevention and treatment of NCDs through research. Our work will not only benefit Thailand and the US, but the growing number of countries who also are facing this global challenge.

To what extent do you feel that urbanisation is a cause of increasing cases of NCDs in developing countries?

While the changing patterns of work and lifestyle that urbanisation often brings undoubtedly contribute to the rising prevalence of NCDs, the ageing of populations also contributes. As infectious disease prevalence and other sources of acute disease decline people are living longer. A longer life leads to more exposure to conditions that give rise to NCDs – unhealthy diet, smoking, lack of exercise, stress, etc., all acting on genetic predispositions. Our research is aimed at finding ways to prevent the occurrence of disease or to help people stay healthy even with chronic exposure to adverse health conditions. As well, we aim to find culturally appropriate interventions for treatment of NCDs which typically require life-long management.

Do you expect that we will continue to see a rise in the prevalence of NCDs as

developing countries continue their development?

NCDs are clearly on the rise globally with parallel increases in urbanisation and ageing populations. The global community will benefit from countries working together to share knowledge and effective practices as they are developed through research and innovation.

Do you think that projects similar to the one you are currently conducting could be applied to healthcare systems in other countries?

The Fogarty International Center of the National Institutes of Health provides support to many countries by addressing research and research training capacity. We are grateful for their funding and support of this project. The US itself benefits from these activities as we learn a great deal through these research efforts that can be applied here at home. Countries with similar issues may have novel solutions that can be shared and translated effectively to other cultures and circumstances. We think that our approach, building capacity for NCD research and training, with its associated translation of findings into health care practice, is essential for all countries with rising NCD.